

What is claimed is:

1. A tube-type vortex reducer for the conduction of cooling air in a compressor of a gas turbine including radial secondary air tubes arranged in a disk interspace and attached to a compressor disk with their radial outward end sections, comprising: a separate carrier ring constructed and arranged to connect to a compressor disk, the end sections of the secondary air tubes being attached to the carrier ring.
2. A tube-type vortex reducer in accordance with Claim 1, wherein the secondary air tubes are attached to the carrier ring by a form fit.
3. A tube-type vortex reducer in accordance with Claim 2, wherein the end sections of the secondary air tubes are provided with mounting shoes which can be inserted into slots of the carrier ring and secured in the slots by locking elements.
- 15 4. A tube-type vortex reducer in accordance with one Claim 3, wherein the carrier ring has a shape of an angle section.
5. A tube-type vortex reducer in accordance with Claim 4, wherein the carrier ring is provided with bolt holes for mounting to the compressor disk which are offset to the slots on the circumference.
- 20 6. A tube-type vortex reducer in accordance with Claim 5, wherein the carrier ring is split into a plurality of segments.
7. A tube-type vortex reducer in accordance with Claim 6, wherein radial inward end sections of the secondary air tubes are located on the compressor disk by a form fit.
- 25 8. A tube-type vortex reducer in accordance with Claim 3, wherein the carrier ring is provided with bolt holes for mounting to the compressor disk which are offset to the slots on the circumference.
9. A tube-type vortex reducer in accordance with Claim 8, wherein the carrier ring is split into a plurality of segments.

10. A tube-type vortex reducer in accordance with Claim 9, wherein radial inward end sections of the secondary air tubes are located on the compressor disk by a form fit.
11. A tube-type vortex reducer in accordance with Claim 1, wherein the end sections of the secondary air tubes are provided with mounting shoes which can be inserted into slots of the carrier ring and secured in the slots by locking elements.
12. A tube-type vortex reducer in accordance with one Claim 1, wherein the carrier ring has a shape of an angle section.
- 10 13. A tube-type vortex reducer in accordance with Claim 3, wherein the carrier ring is provided with bolt holes for mounting to the compressor disk which are offset to the slots on the circumference.
14. A tube-type vortex reducer in accordance with Claim 1, wherein the carrier ring is split into a plurality of segments.
- 15 15. A tube-type vortex reducer in accordance with Claim 1, wherein radial inward end sections of the secondary air tubes are located on the compressor disk by a form fit.
16. A tube-type vortex reducer in accordance with Claim 3, wherein the locking elements comprise radially outwardly facing portions that engage radially inwardly facing portions of the mounting shoes of the secondary air tubes.
- 20 17. A tube-type vortex reducer in accordance with Claim 16, wherein the radially outwardly facing portions of the locking elements are chamfered and the radially inwardly facing portions of the mounting shoes are chamfered.
18. A tube-type vortex reducer in accordance with Claim 1, wherein the locking elements comprise radially outwardly facing portions that engage radially inwardly facing portions of the mounting shoes of the secondary air tubes.
- 25 19. A tube-type vortex reducer in accordance with Claim 18, wherein the radially outwardly facing portions of the locking elements are chamfered and the radially inwardly facing portions of the mounting shoes are chamfered.